

FIG. 1A

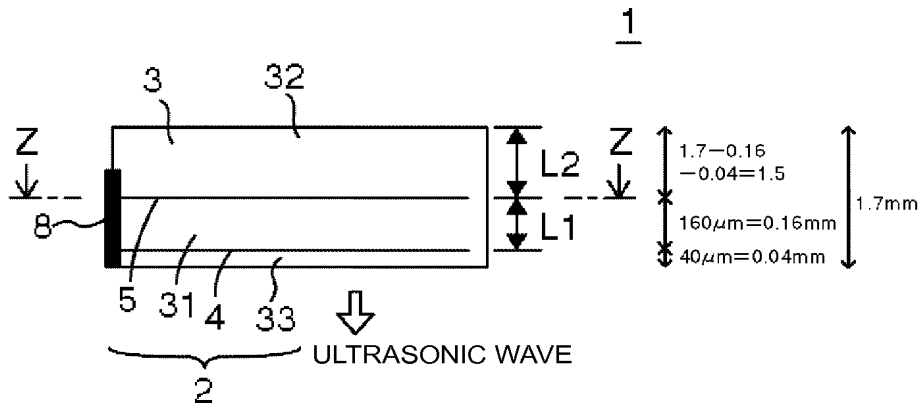


FIG. 1B

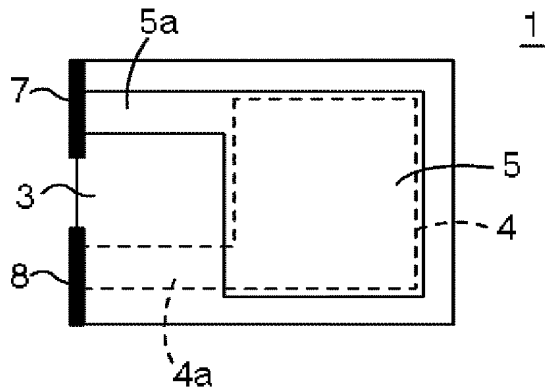


FIG. 2A

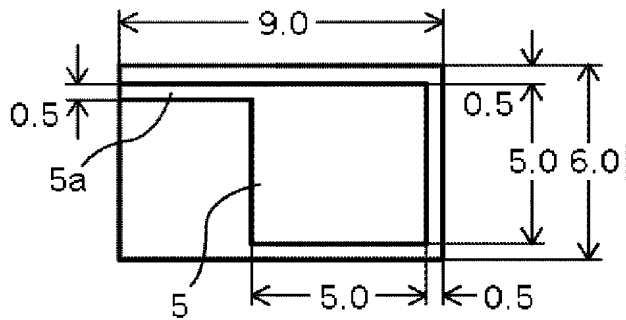


FIG. 2B

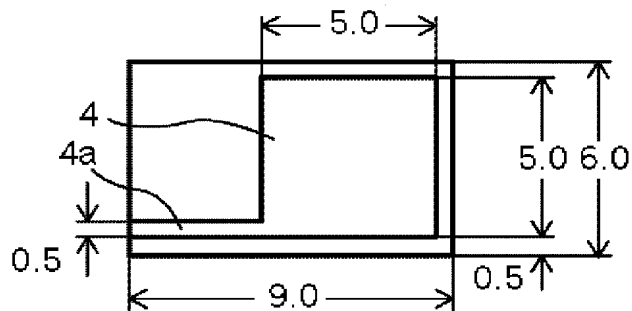


FIG. 3

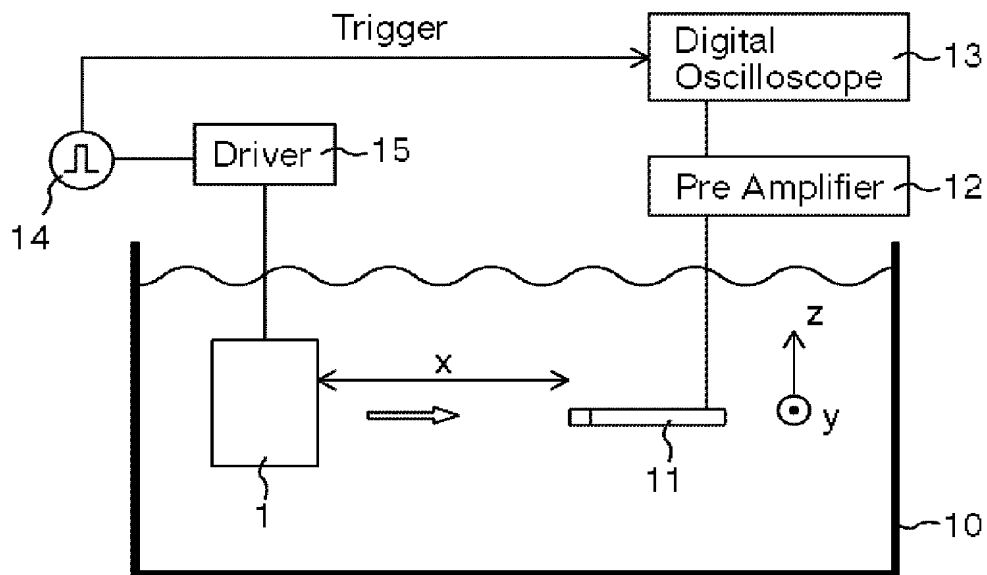


FIG. 4

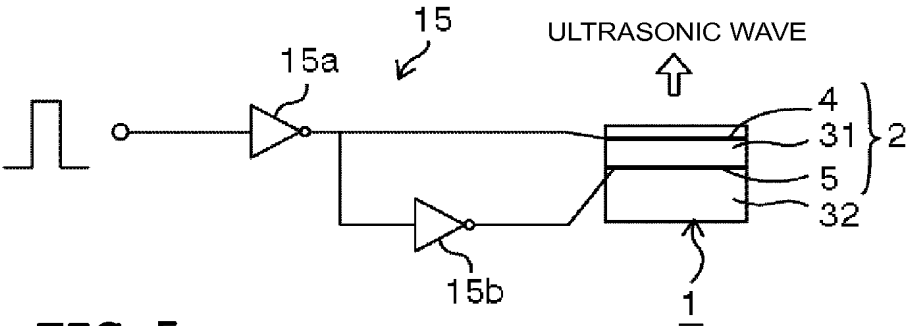


FIG. 5

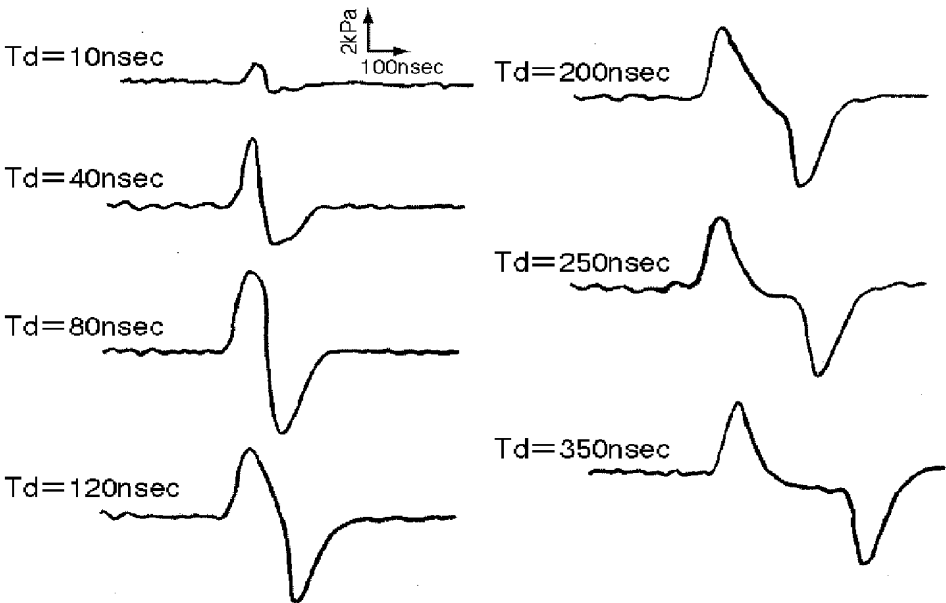


FIG. 6

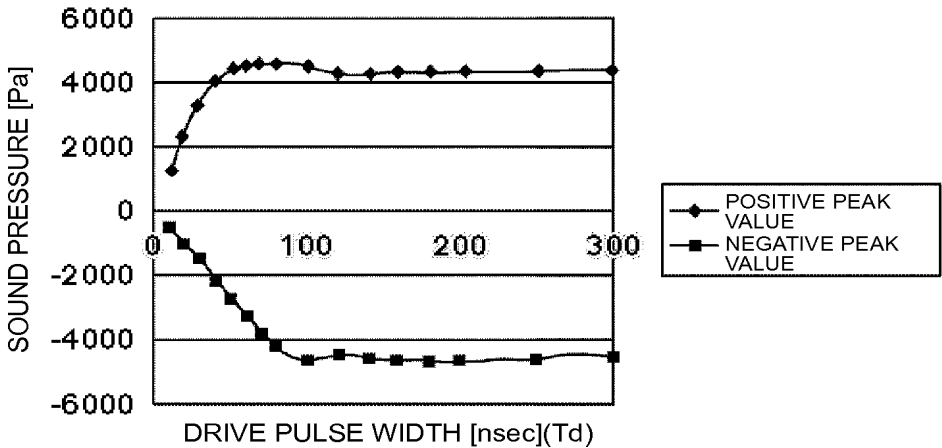


FIG. 7

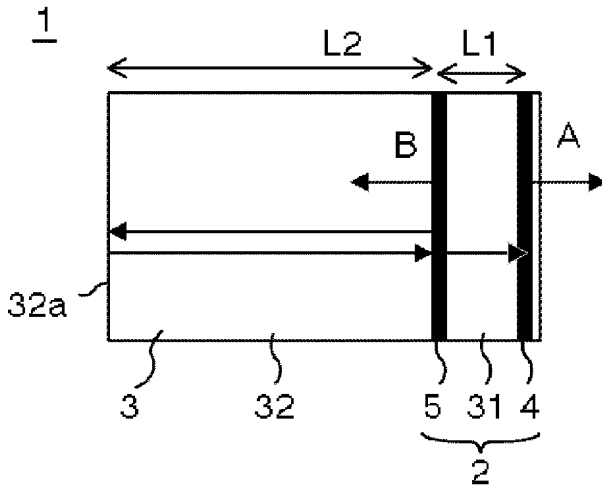


FIG. 8A

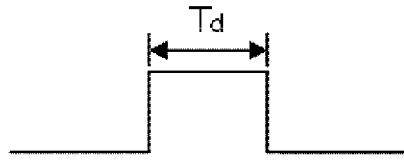


FIG. 8B



FIG. 9

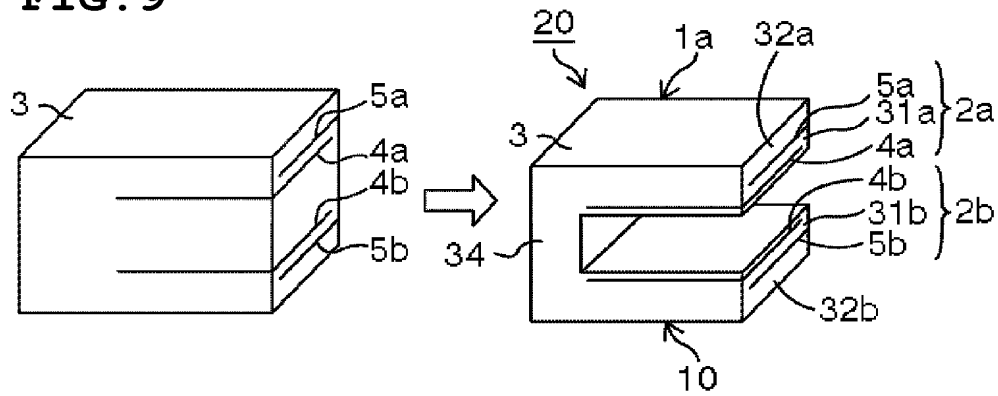


FIG. 10

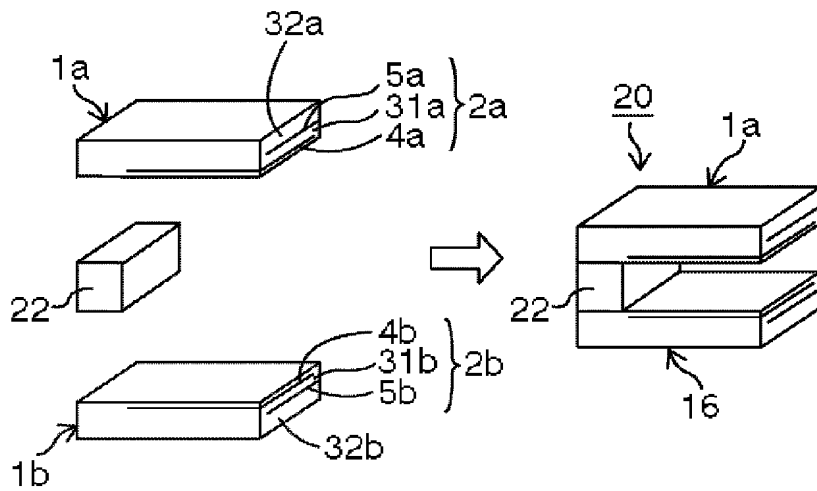


FIG. 11

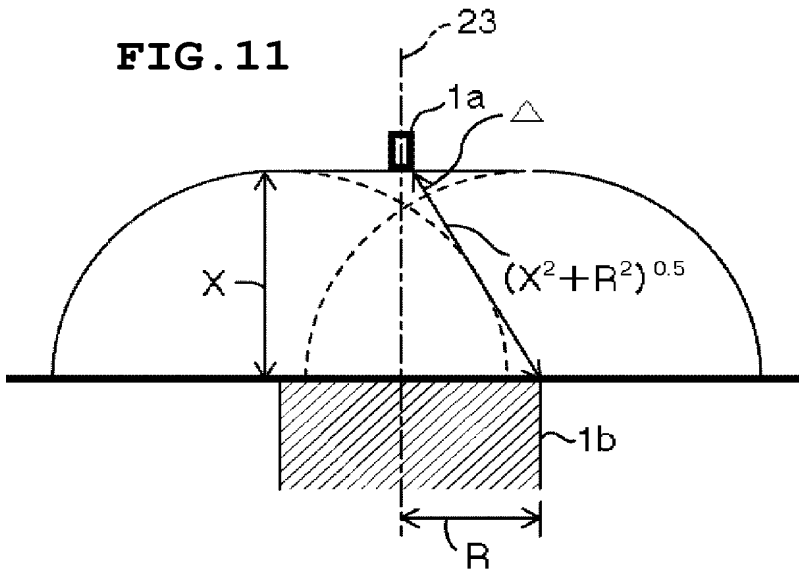


FIG. 12A

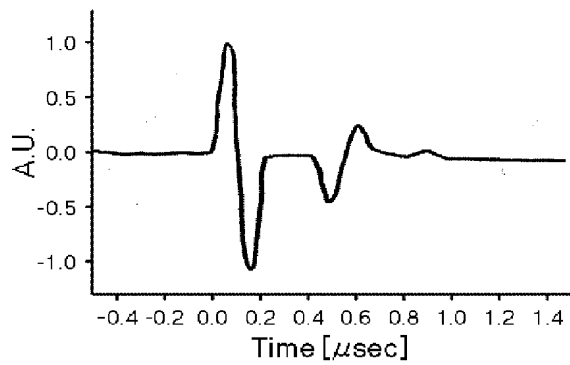


FIG. 12B

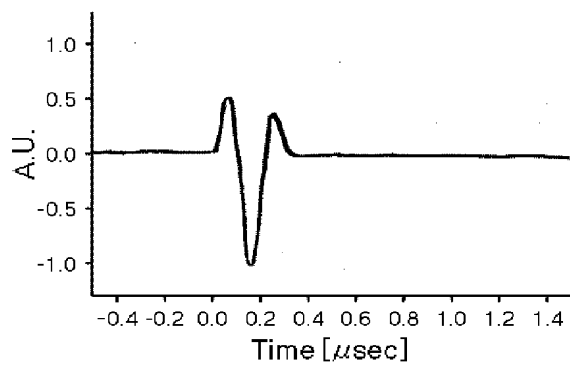


FIG. 13

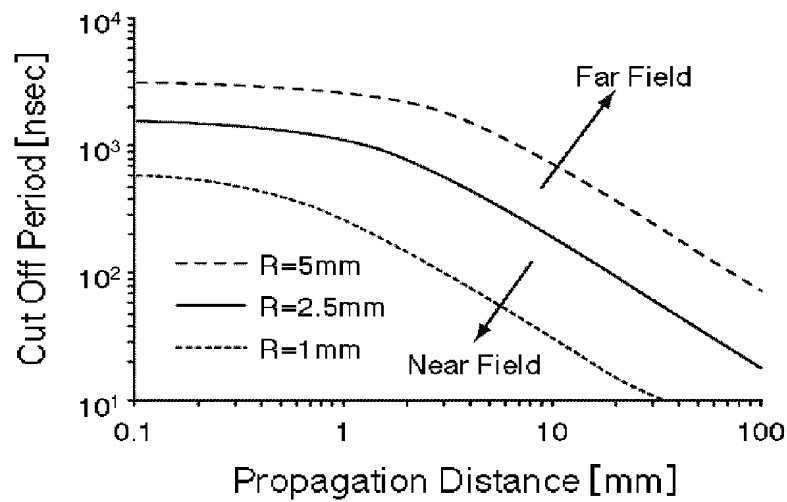


FIG. 14

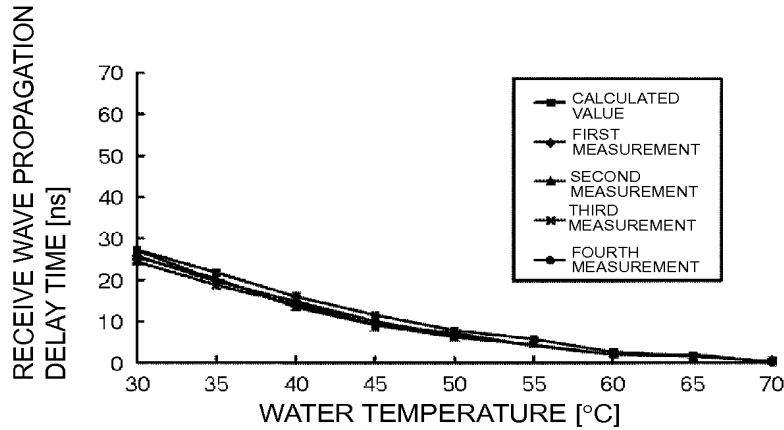
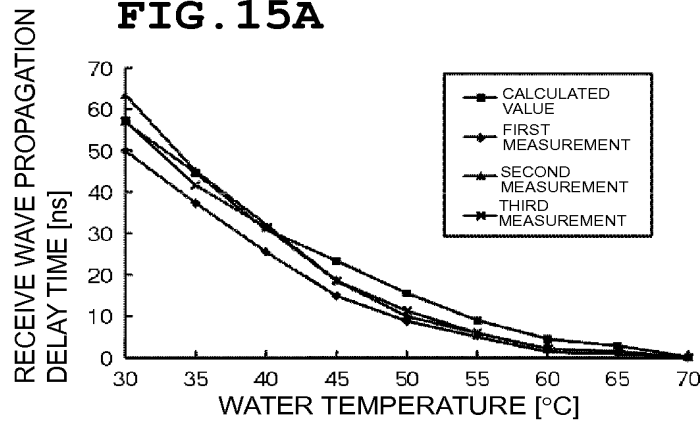
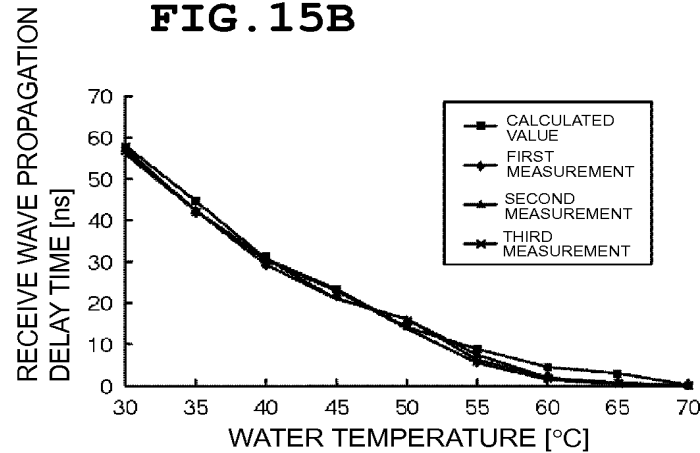


FIG. 15A



SAMPLE BONDED WITH EPOXY RESIN

FIG. 15B



SAMPLE BONDED WITH GLASS

FIG. 16

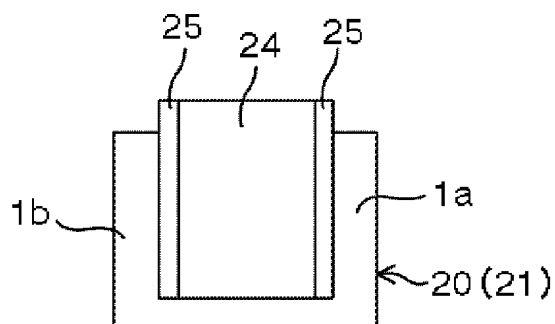


FIG. 17A

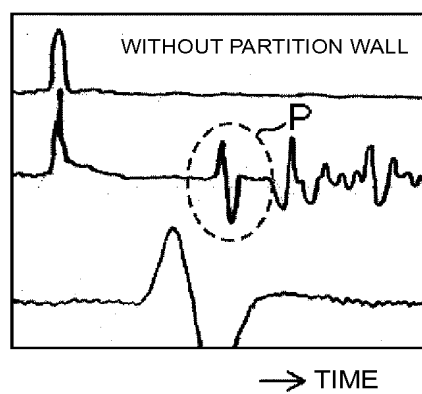


FIG. 17B

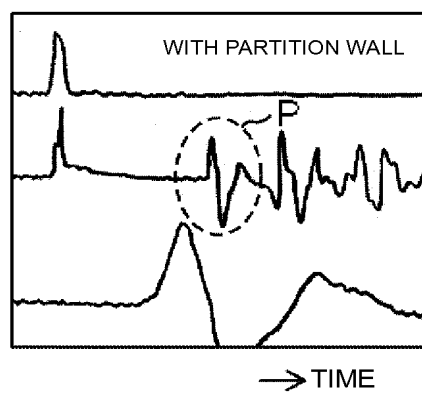


FIG. 18

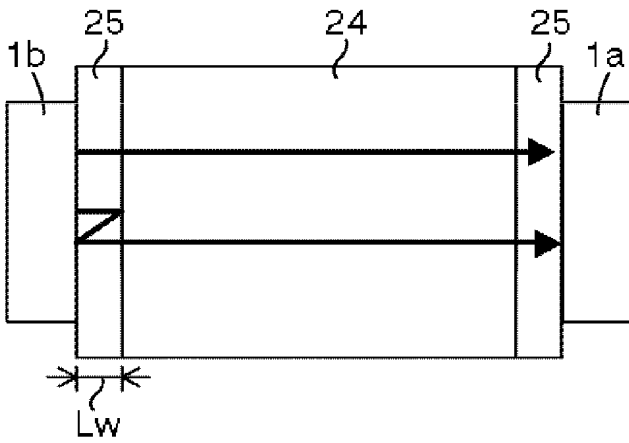


FIG. 19A

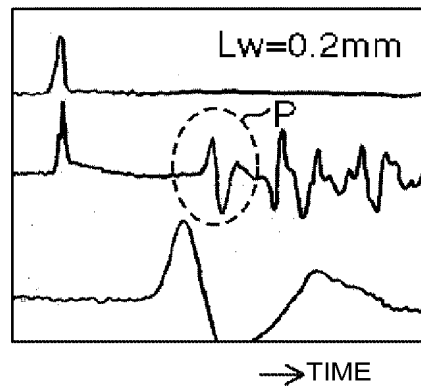


FIG. 19B

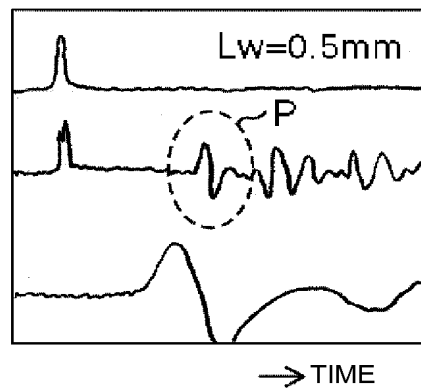
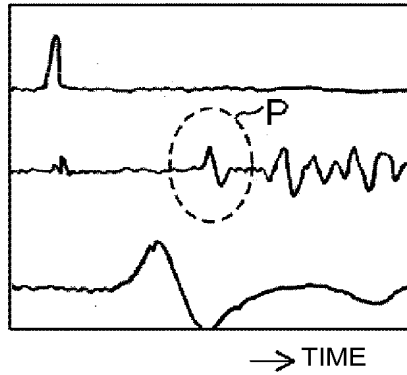
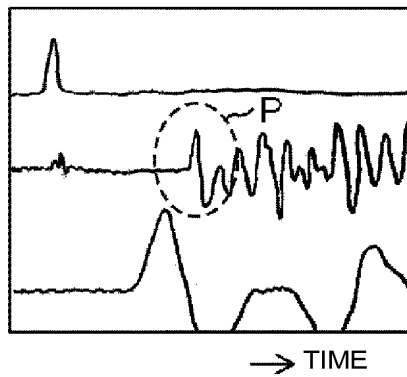


FIG. 20A



MEASUREMENT RESULT OF A SAMPLE BONDED WITH
A POLYCARBONATE HAVING A THICKNESS OF 0.5 mm

FIG. 20B



MEASUREMENT RESULT OF A SAMPLE BONDED WITH A
LIQUID CRYSTAL POLYMER HAVING A THICKNESS OF 0.5 mm

FIG. 21

| MATERIAL | DENSITY (kg/m^3) | SOUND SPEED (m/s) | CHARACTERISTIC IMPEDANCE (10^6kg/s/m^2) |
|---------------------------|--------------------------------|-------------------------|---|
| POLYCARBONATE | 1171 | 2330 | 2.73 |
| LIQUID CRYSTAL POLYMER | 1824 | 3470 | 6.33 |
| CERAMIC | 7800 | 3950 | 30.8 |
| WATER | 998 | 1483 | 1.48 |

FIG. 22A

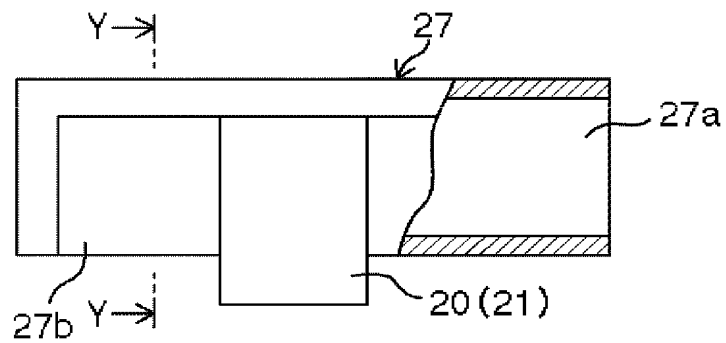


FIG. 22B

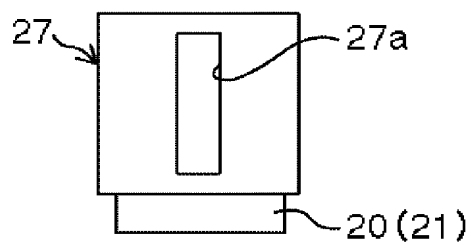


FIG. 22C

